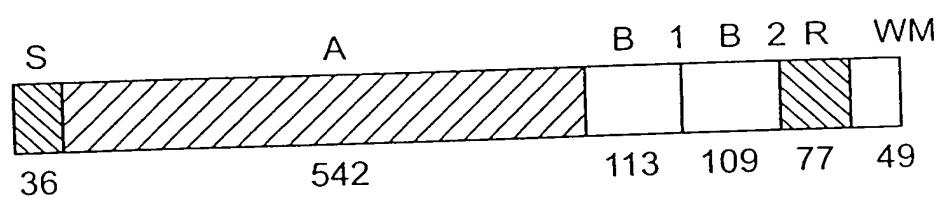


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S. EPIDERMIDIS STRAIN K28 SdrG

**FIG. 1**

CODING SEQUENCE FOR SdrF - INCLUDES FLANKING SEQUENCES

tatggataattatgcttataaggattacataaaaatgttaatgcattacaagta  
Y W I N Y A Y K V F T - K C K C N L Q V  
aatattcaaattttcccttgtaaaaatattttaaactggaggatatgttatgaaaaaag  
N I Q I S L - N L Y F N W R Y S M K K  
agaagacaaggaccataacaaggaggatggatttctatccaacaaaggtaaacaagtaac  
R R Q G P I N K R V D F L S N K V N K Y  
tcgattaggaaagtccacagttcaggtaatactcggtggctacgttatgttt  
S I R K F T V G T A S I L V G A T L M F  
ggtgcccgagacaatggcttaaaggcggtgtgaagacaatcaattagaatcagcttcaaaa  
G A D N E A K A A E D N Q L E S A S K  
gaagaacagaaaaaggtagtcgtgataatgaaaaactcaatcaatcgatttagac  
E E Q K G S R D N E N S K L N Q V D L D  
aacggatcacatagttctgagaaaaacaacaatgtaaacaatgcaactgaaatggaaaaaa  
N G S H S S E K T T N V N N A T E V K K  
gttgaaggcaccacgacaatggacgttatctaaggccataatgaaaggactgacg  
V E A P T S D V S K P K A N E A V V T  
aatgagtcactaaaccaacaaacagaaggccacactgttatgaggaaatcaatagct  
N E S T K P K T T E A P T V N E E S I A

FIG. 2

gaaacacccaaaaccctcaactacacaaggattcgactgagaagaaataatccatctta  
 E T P K T S T Q D S T E K N N P S L  
 aaagataatttaattcatctcaacgacatctaaggaaagtaaaacaggacaaacattct  
 K D N L N S S T T S K E S K T D E H S  
 actaaaggcaatgtcaatgttactaataatcaaataatggacacaatgactctccaaact  
 T K Q A Q M S T N K S N L D T N D S P T  
 caaagtggaaaaacttcatcacaaggcaataacgacagtagataatcagtcaggcacct  
 Q S E K T S S Q A N N D S T D N Q S A P  
 tctaaacaaatttagattcaaaaaccatcagaacaaaaaggatataaaacaaaatttaatgt  
 S K Q L D S K P S E Q K V Y K T K F N D  
 gaaccctactcaagatgttgaacacacgacaactaaattaaaaacaccttctgtttcaaca  
 E P T Q D V E H T T K I K T P S V S T  
 gatagttcagtcataatgataaggattcacacgaaatgtgttagtttaggttgtt  
 D S S V N D K Q D Y T R S A V A S L G V  
 gatttctaattgataaggcaattacaatgtcagtttagagacaatttttagattaaaagct  
 D S N E T E A I T N A V R D N L D L K A  
 gcattcttagagaacaaatcaatgtaaaggcaatcatgtgtgaaggactaaaaagactttct  
 A S R E Q I N E A I I A E A L K K D F S  
 aaccctgttattgttcgatacggccatttagctctaaccaggatctcaatcaataaaaattca  
 N P D Y G V D T P L A L N R S Q S K N S

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FIG. 2(*cont'd*)

ccacataaggcaagtggcatcacgcatgttttagcttaggcctaataatgt  
P H K S A S P R M N L M S L A A E P N S  
ggtaaaaatgtgaatgataaaatcacaaacccttacgcttcacttaataaggt  
G K N V N D K V K I T N P T L S L N K S  
aataatcagctaataacgtaataatggccaacaacaaatttaataaaagca  
N N H A N N V I W P T S N E Q F N L K A  
aatttatgaatttagatgacagcataaaaaggaggatactttacttaataatgttcag  
N Y E L D D S I K E G D T I K Y G Q  
tatattagaccgggtggtttagaacttccctggcaataaaaactcaactacgttagtaaggat  
Y I R P G G L E L P A I K T Q L R S K D  
ggctcttatgttagctaataatgttatgtataaaactacaataacgacgtatacatt  
G S I V A N G V Y D K T N T T Y T F

T N Y V D Q Y Q N I T G S F D L I A T P  
aaggggaaacagcaattaaaggataattcagaatttgcattttgatttaatttgcacggcc  
K R E T A I K D N Q N Y P M E V T I A N  
gaagttagtcaaaaagacttcatgtgatattgttaataaaaaggacaataactaca  
E V V K K D F I V D Y G N K K D N T T T  
gcaggcggtagccaaatgtggataatgttaataaaaacataacggaaagtgttatctaaac  
A A V A N V D N V N K H N E V V Y L N  
caaataaccaaaaaccctaaatatgtctaataatctcaacagtaaaaaatggtgaaattt  
Q N N Q N P K Y A K Y F S T V K N G E F  
ataccaggtagtggaaagttaacgaaagttagcggataccaatgcgttagatagcttc  
I P G E V K V E V T D T N A M V D S F  
aatccgtattaaataggatcttaatgttaataaaggatgtgacaagtcataatggcacctaaga  
N P D L N S S N V K D V T S Q F A P K V  
agtgcagatggtaactaggatgtgatattcaatttgcattttgatggcaatggtaaaaaag  
S A D G T R V D I N F A R S M A N G K K  
tatattgttaactcaaggtagccaaacgggaacttggaaatgttttataccggaaatttgg  
Y I V T Q A V R P T G T G N V Y T E Y W  
ttaacaaggatggtaactaccaataatgtattttacccgtggaaacggaaagtctacaacg  
L T R D G T T N D F Y R G T K S T T

FIG. 2 (cont'd)

gtgacttatctcaatggttcaacaggcacaggggataatccatatagtcttaggt  
 V T Y L N G S S T A Q G D N P T Y S L G  
 gactatgtatggtttagataaaaataaaacgggttgttccaaggatgtgagaaagggtta  
 D Y V W L D K N K N G V Q D D E K G L  
 gcagggtttatgttacttaaaggacagaataacaatagaataacgtgttaactact  
 A G V Y V T L K D S N N R E L Q R V T T  
 gatcaaattctggacattatcaattttgataattttacaaaatggAACgtacacagtcgagtt  
 D Q S G H Y Q F D N L Q N G T Y T V E F  
 gcgattcctgataattatacggccatctcccgcaataatttacaaaatgtgaaataggat  
 A I P D N Y T P S P A N N S T N D A I D  
 tcagatggtaacacgttgatggtaaagttagttgttgcCAAAGGAACAAATTAAAT  
 S D G E R D G T R K V V A K G T I N N  
 gctgataatgtactgttagatactggcttttttttttttttttttttttttttttttttt  
 A D N M T V D T G F Y L T P K Y N V G D  
 tatgtatggaaagataacaataaaggatggatccaaaggatgtgacaatgtgaaatggaaatgg  
 Y V W E D T N K D G I Q D D N E K G I S  
 ggtgttaaagtaacgttaaaaataaaaatggagatactttggcacaacgacaacagat  
 G V K V T L K N G D T I G T T T D  
 tcaaattgttaaataatgtaaattcacagggttttagagaacggggattacacaatgg  
 S N G K Y E F T G L E N G D Y T I E F E

**FIG. 2 (cont'd)**

acggccggaaaggctacacaccgactaaacaaaactcgggaaagtgcacgaaaggatca  
T P E G Y T P T K Q N S G S D E G K D S  
aacggtaacgaaaacaacaaacgtcacagtcaaaaggatcggcagataataaaacaataggactcagggt  
N G T K T V T V K D A D N K T I D S G  
ttctacaagccaaacataacttaggtgactatgttggaaaggatacaaataaagatgggt  
F Y K P T Y N L G D Y V W E D T N K D G  
attcaagacgacagtggaaaaaggatttcggggatttaaaggatggacgttggaaaggataaaaaat  
I Q D D S E K G I S G V K V T L K D K N  
ggaaatggccattggacaacgacaacgacggcaaggacgttcattcaatttaaaggattta  
G N A I G T T T D A S G H Y Q F K G L  
gaaaatggaaaggctacacacgttgaggatcggatcaccacccgacaaaaggcg 28  
E N G S Y T V E F T P S G Y T P T K A

FIG. 2(*cont'd*)

aattcaggccaagataataactgttagattccaaacggataacaacaaacaggatattcaac  
N S G Q D I T V D S N G I T T G I I N  
ggaggctgataatctcacaaattgtggatgtttctacaaaacaccaaaaataatgtgttcggat  
G A D N L T I D S G F Y K T P K Y S V G  
gattatgtatgggaagataacaaataaaggatggatccaaaggatgacaatgaaaaggaaatt  
D Y V W E D T N K D G I Q D D N E K G I  
tctgggttaaaggtaacgttaaaggatgaaaaggaaataattagcactacaacaact  
S G V K V T L K D E K G N I I S T T T T  
gatgaaaatgggaagtgataattgtggataattcatattcatattcat  
D E N G K Y Q F D N L D S G N Y I I H F  
gagaaccggaggcatgactcaactacaggcaaaattctggaaaatgtggatgatgaaaaggat  
E K P E G M T Q T A N S G N D D E K D  
gctgatggggaaagatgttcgttgttacgattactgtgacttgacttatgatataat  
A D G E D V R V T I T D H D F S I D N  
ggttatgttgcgtatgttgcgtacgtgactcagacgcaggatgtgattcagactcagac  
G Y F D D S D S D A D S D S D S D  
agtgactcgaggcaggacaggcaggatgtgactcagacgcaggatgtgat  
S D S D A D S D A D S D A D S D  
tctgactcaggacaggcaggacgtcaggatgtgattccggatcaggacaggcactcggat  
S D S D A D S D A D S D S D S D

**FIG. 2**(*cont'd*)

FIG. 2 (cont'd)

FIG. 2(*cont'd*)

agcgattcagacaggactcagattccgataggattccgatttcagacaggatgc  
 S D S D S D S D S D S D S D S D S D  
 tcggattccgataggactcagacaggactcagattccgataggactcagat  
 S D S D S D S D S D S D S D S D S D  
 tcagacaggatggactcaggataggatccgattccgataggactcggat  
 S D S D S D S D S D S D S D S D S D  
 agcgattccgattcggataggactcggatccgacaggatggactcagac  
 S D S D S D S D S D S D S D S D S D  
 tccgattcagataggattccgactcagacaggatccgataggactcggat  
 S D S D S D S D S D S D S D S D S D  
 tcagacaggattcggactcaggacaggatccgataggactcggataggac  
 S D S D S D S D S D S D S D S D A D  
 agcgactccgattcagataggattccggacaggcggatccgataggactcggat  
 S D S D S D A D S D S D S D S D S D  
 tcagacaggattcggactcaggacaggatccgataggactcggataggactc  
 S D S D S D S D S D S D S D S D S D  
 agcgactccgattcggactcaggacaggatccgataggactcggataggactc  
 S D S D S D S D S D S D S D S D S D  
 tcggattctgataaaaaatgcaaaaatgcatacaggaggcaatgaagatcat  
 S D S D K N A K D K L P D T G A N E D H

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**FIG. 2( cont'd)**

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**FIG. 2**(*cont'd*)

Sdrg coding and flanking sequences.

atattgcaaaaaagacttatacttatgttactctagaaaacgattttacttgaa  
I A K K T Y I L Y C I L L - K R F L L E  
aattacattgaaatagtcaaaggataaggattttatgattaaaaaaaatttacta  
N Y I E I V K D K E F L - L K K N N L L  
actaaaaaggaaaccatacgaaataatccaaataatgcatttagaaaaattcacaatga  
T K K P I A N K S N K Y A I R K F T V  
ggtaacagcgcttatgttaataagggtgcaggcattttgttttaggtcataatgggcc  
G T A S I V I G A A L L F G L G H N E A  
aaagctgaggaaatacagtacaaggacgttaaaggatttcgaatattggatgatgatca  
K A E E N T V Q D V K D S N M D D E L S  
gataggcaatgtcaggtaatgtaaaggaaaaatgtataatcaataatgtcagtca  
D S N D Q S S N E E K N D V I N N S Q S  
ataaacccgatgtgataaccataaaaaaggaaaggaaatacgatggccata  
I N T D D N Q I K K E E T N S N D A I  
gaaaatcgcgttcaaaggataacacagtcacaaataatgtatgaaaacgaaaggcaaca  
E N R S K D I T Q S T T N V D E N E A T  
tttttacaaaaaggadccctcaagataatactcagcttaaagaaggatggtaaaaaggAACCC  
F L Q K T P Q D N T Q L K E E V V K E P  
tcatcagtcgaatccatcaatggatactggccaaacaaccatctcatacaaca  
S S V E S S N S M D T A Q Q P S H T T

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**FIG. 3**

FIG. 3 (cont'd)

attacacttacagatttagataatgaaaatataaggccaccctaaa  
I T Y T F T D Y V D K Y E N I K A H L K  
ttaacatcatcattgataaatcaaaggttccaaataactaaggtagaa  
L T S Y I D K S K V P N N T K L D V E  
tataaggacggcccttcattcagtaataaaacaattacggttgaatataaaaaaacctaac  
Y K T A L S S V N K T I T V E Y Q K P N  
gaaaatcggaactgctaaccctcaaaatgttccaaaaacatacgaaaaaccataca  
E N R T A N L Q S M F T N I D T K N H T  
gtttagccaaacgattataaccctcttcgttattcagccaaaggaaataatgttaat 15  
V E Q T I Y I N P L R Y S A K E T N V N / 28  
attcaggaaatggcgatgaaaggttcaacaattatcgacgatagttacaatcataaatgtt

FIG. 3(*cont'd*)

I S G N G D E G S T I D D S T I I K V  
 tataagggtggagataatcaaattaccagataatgaaattttacca  
 Y K V G D N Q N L P D S N R I Y D Y S E  
 tatgaagatgtcacaaatgtgattatggccaaattttaggaaataatgacgtgaattatt  
 Y E D V T N D D Y A Q L G N N D V N I  
 aattttggtaataataggattcaccatataatggattttatggaaattatgacccttaat  
 N F G N I D S P Y I K V I S K Y D P N  
 aaggacgattacacgacgatacagcaactgtgacaatgcaaaacgactataatgagtat  
 K D D Y T T I Q Q T V T M Q T T I N E Y  
 actggtagtttagaaccaggcatccatgataatacaatttgctttctacaaggttcaggat  
 T G E F R T A S Y D N T I A F S T S S G / 16  
 caaggacaagggtgacttgccttcgtaaaaacttataatcgaggattacgtatggaa  
 Q G Q G D L P P E K T Y K I G D Y V W E  
 gatgttagataaaatggatgttatcaaaaatacaatgaaaacccgtttagtaatgta  
 D V D K D G I Q N T N E K P L S N V  
 ttggtaactttgacgttatccatggaaacttcaaaaatcagtcagaacagatgaaagggg  
 L V T L T Y P D G T S K S V R T D E E G  
 aaatatcaatttggatgggtttaaaaaacggattgacttataatcatcgaaaacccg  
 K Y Q F D G L K N G L T Y K I T F E T P  
 gaaggatatacggccgacgttaaacatcaggaaacattcacttagactcagaaggc  
 E G Y T P T L K H S G T N P A I D S E G

**FIG. 3(cont'd)**

aattctgtatggtaacttaacggacaaggacgatatacgatggattttat  
 N S V W V T I N G Q D D M T I D S G F Y  
 caaacacctaaataataggactttagggaaactatgttatggatcactaataaaggatggatt  
 Q T P K Y S L G N Y V W Y D T N K D G I  
 caaggatgtgaaaaaggaaatctctggaggtaaaaggtaacgttaaaaggatggaa  
 Q G D D E K G I S G V K V T L K D E N G  
 aatatcatatgtacaaacaactgtgaaaatggaaagtatcaattgtataattaaat  
 N I I S T T D E N G K Y Q F D N L N  
 agtggtaatttattgttcatttgataaacccttcaggatgtactcaaacaacagat  
 S G N Y I V H F D K P S G M T Q T T D  
 tctggatgtgacgaaacaggatgtgatggaaaggatccatgtaaacaattactgtat  
 S G D D D E Q D A D G E E V H V T I T D 17 / 28  
 catgatgtactttagtatacgatactatgtatgacgactcagatcagatgtat  
 H D F S I D N G Y D D S D S D S D  
 tcagactcagatgtgacgactcagactccgataggcgatccgactcagacagcgactca  
 S D S D S D S D S D S D S D S D  
 gattcccgatgtgatcagattcagacagatgtgactcagactcagatgtgattcagatc  
 D S D S D S D S D S D S D S D S  
 gacaggcgattccgactcagacagatgtgactcaggatttagacaatacgataagaataca  
 D S D S D S D S G L D N S D K N T

**FIG. 3 (cont'd)**

aaagataattaccggatcacaggagcttaatgaaagatcatgattctaaggccacattactt  
K D K L P D T G A N E D H S K G T L L  
ggagccttttgcagggttaggaggcgtttatattaaaggaaaggcgcaaaaatagaaaaa  
G A L F A G L G A L L G K R R K N R K  
ataaaaaattcaattttcaattttcaattttcaattttcaattttcaattttcaattttcaat  
N K N \* I I Q M K L V K E A D T T F E -  
aaagtatatttagtccaaataaagggtttg  
K V Y L V Q I - G I - G V

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FIG. 3 (cont'd)

sdrB coding region

atgaaaagttAACATTCAATTCAACATTAACTTACGGGCTTGCATTCAATGGTAAC  
M K K F N I K H S F M L T G F A E F M V T  
acatcatattcaggcaccaaggcacatgcgtgaaggtaatcatccatttgcacatttt  
T S L F S H Q A H A E G N H P I D I N F  
-  
tctaaagatcaaatttgataagaataacagotaaaatccaaatcgaggatgtgaatgac  
S K D Q I D R N T A K S N I I N R V N D  
actagtccacaggaaatttagtatggataattcggttttttttttttttttttttttttt  
T S R T G I S M N S D N D L D T D I V S  
aatagtggactcagaaaaatgacacatatttagataatttttttttttttttttttttt  
N S D S E N D T Y L D S D S D S D S D S  
gattcaggataggactcaggattcaggataggactcaggattcaggataggactcaggat  
D S D S D S D S D S D S D S D S D S  
gacagtggattcaggactcaggataggactcaggatggattcaggactcaggatagg  
D S D S D S D S D S D S D S D S D S  
gattcaggattcaggacaggatggattcaggatggactcaggacaggatggattcaggat  
D S D S D S D S D S D S D S D S D S  
gattcaggataggatggattcaggatggattcaggatggattcaggatggattcaggat  
D S D S D S D S D S D S D S D S D S  
gacagtggactcaggactcaggatggattcaggatggattcaggatggattcaggat  
D S D S D S D S D S D S D S D S D S

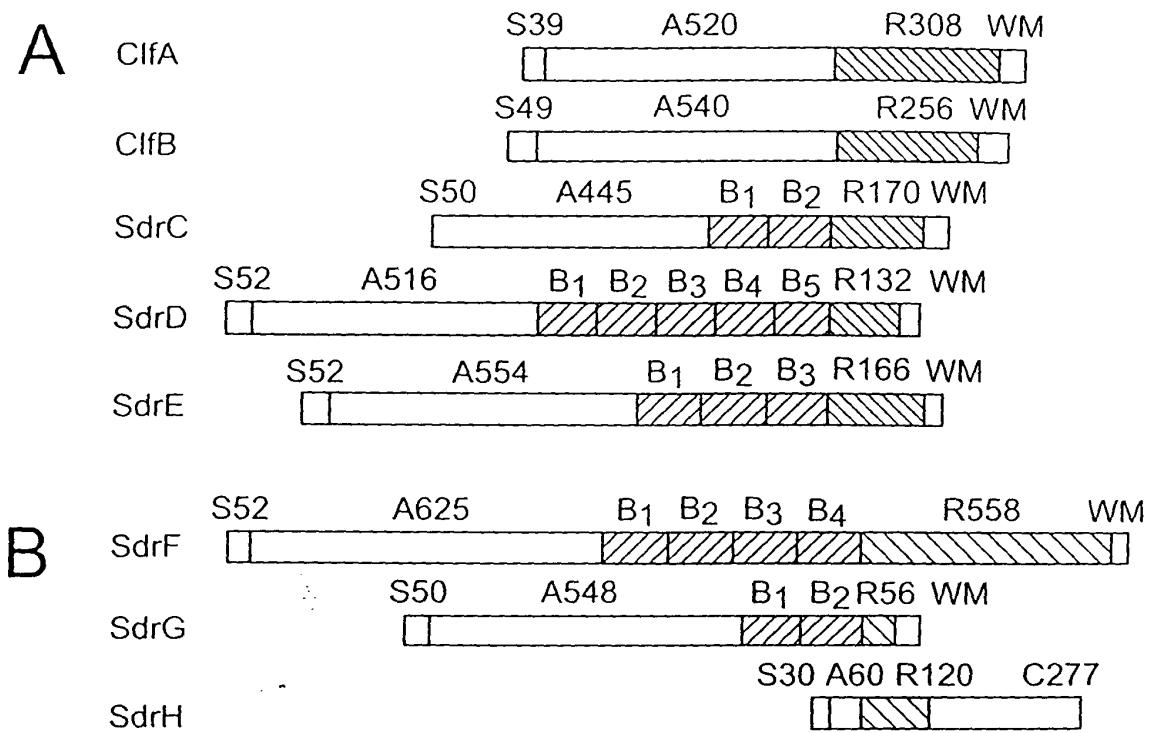
**FIG. 4**

gactcaggattcagatagtgattcaggactctggtacaaggttcaggtaagggttcacatacc  
 D S D S D S G T S S G K G S H T  
 ggaaaaaacccctggtaaccctaaggaaatacaaaatagacccttccaaggacatacgaaat  
 G K P G N P K G N T N R P S Q R H T N  
 caacccccaaaggccctaatacaatcaaaccataaaataaacaataaaaccat  
 Q P Q R P K Y N Q I N Q N N I N N I N H  
 aatattaatcatacacgtacttagtgaggatgggtgcgcctttaaacgtcaaaataatttt  
 N I N H T R T S G D G A P F K R Q Q N I  
 attaatttaattcaggatcatagaatcaaataatcaaataatcaatttatggaaacaaa  
 I N S N S G H R N Q N I N Q F I W N K  
 aatggcttttaataatctcaaataaccgaacatagaatagaatagtagcgataatacc  
 N G F F K S Q N T E H R M N S D N T  
 aattcattaatttagcaggattcagacaatttagccacgggtgccttataaggatccgttt  
 N S I S R F R Q L A T G A Y K Y N P F  
 ttgatttaatcaaggtaaaaaattttgaatcaatttagatggaaagggtgcacagatgtgacatt  
 I I N Q V K N L N Q L D G K V T D S D I  
 tataggctttagaaaggcaatcttagggaaatgaatatttaatttacattacaaaaaa  
 Y S L F R K Q S F R G N E Y L N S L Q K  
 ggacaaggctttagattcaaattttaattccacttaatttagtaactatgaa  
 G T S Y F E R F Q Y F N P L N S S K Y Y E

**FIG. 4 (cont'd)**

aatttagatgatcaggtttagcttaattacaggagaattcggtcaatgccagaacct  
N L D D Q V L A L I T G E I G S M P E L  
aaaaaacccatacggtaaaaggataaaatcatagcggccttcaaaaaccatagtgcagat  
K K P T D K E D K N H S A F K N H S A D  
gagataacaacaaataatgtatggacactccaaaggatttatgataaggaaaaaaaatcacat  
E I T T N N D G H S K D Y D K K K I H  
cgaagtctttatcgtttaagtattgcaataattggaattttctaggagtcactggacta  
R S L L S I A I G I E L G V T G L  
tatatctttagaaaaaaaggtaa  
Y I F R R K K \*

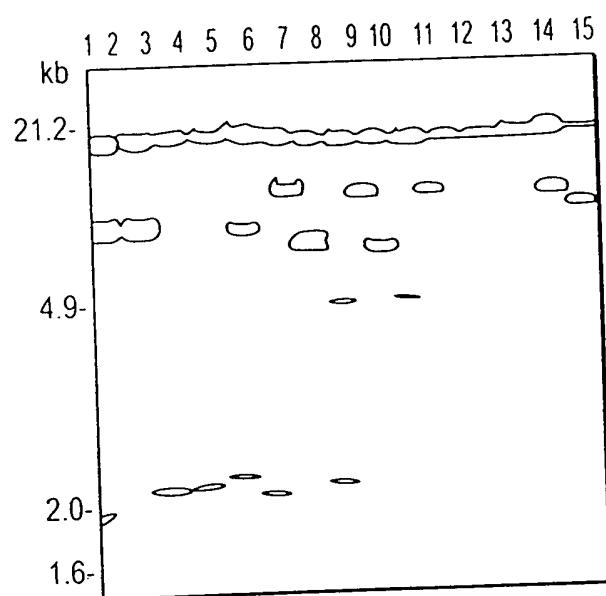
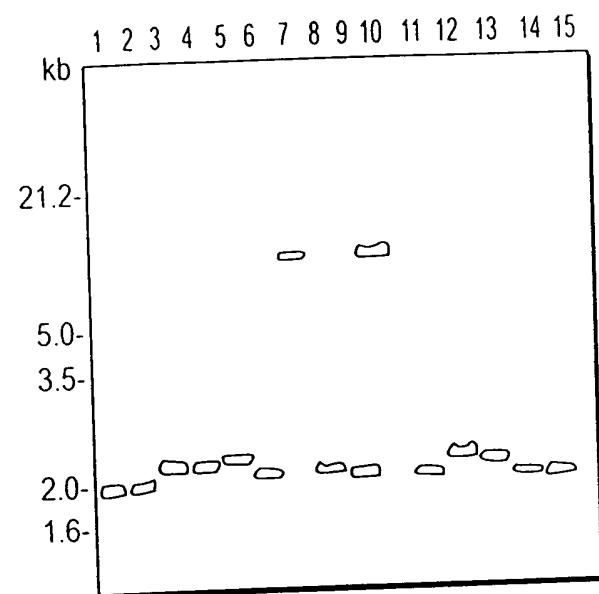
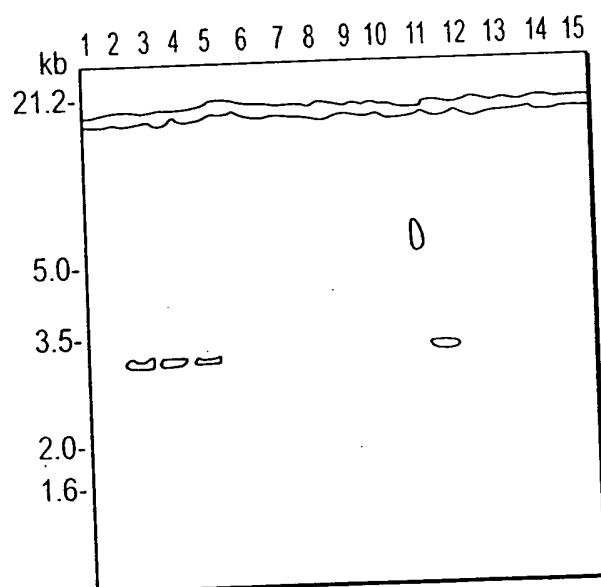
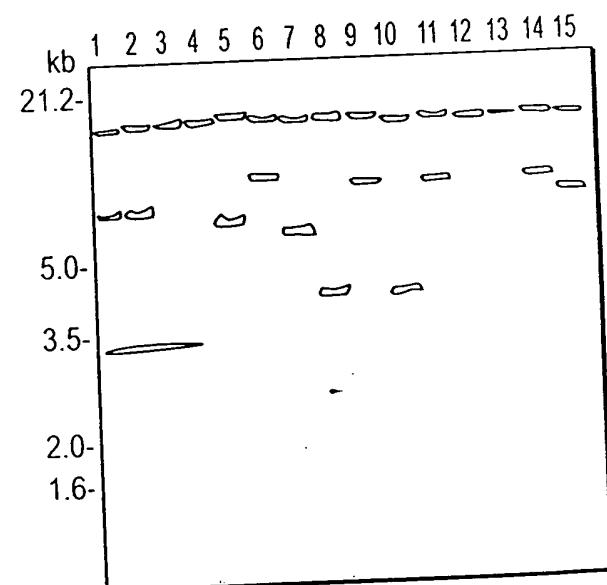
FIG. 4 (cont'd)



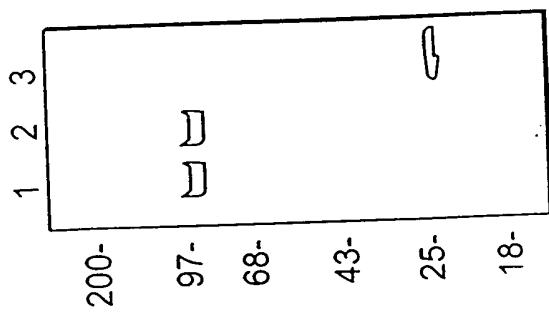
**C**

|      |   |
|------|---|
| SdrF | SDSDSDSDSDSDDKNAKDKL <u>PDTGANEDHDSKGTLGTLFAGLGALLGRRKKDNKEK</u>      |
| SdrG | SDSDSDSGLDNSSDKNTDKL <u>PDTGANEDHDSKGTLGALFAGLGALLLGKRRKNRKNKN</u>    |
| SdrH | DKNHSAFKNHSADEITTNNNDGHSKDYDKKKKIHRSSLSSIAIIGIF <u>LGVTLGLYIFRRKK</u> |

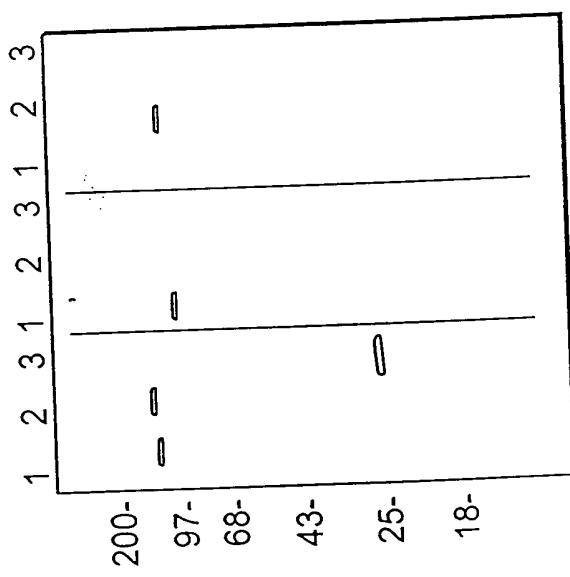
**FIG. 5**

**FIG. 6A****FIG. 6B****FIG. 6C****FIG. 6D**

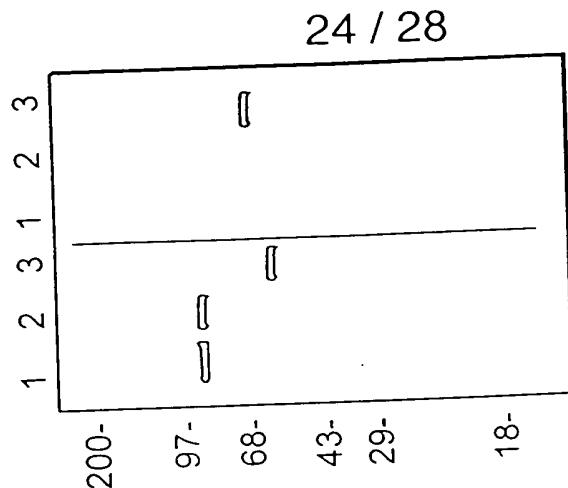
**FIG. 7A**



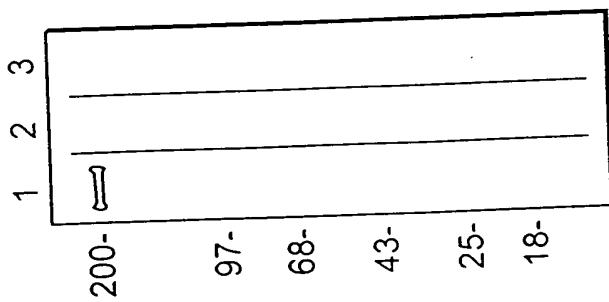
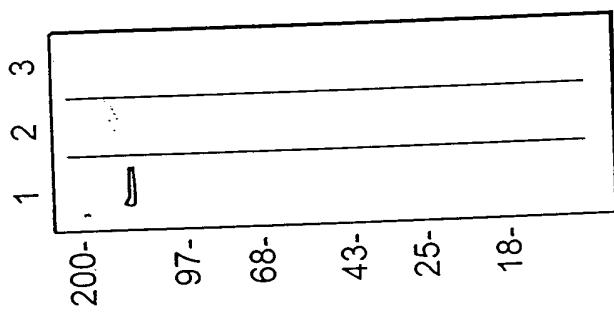
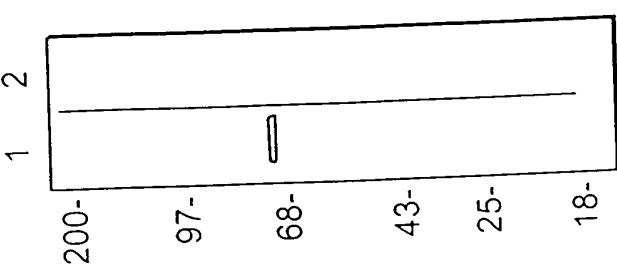
**FIG. 7B**



**FIG. 7C**



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**FIG. 8A****FIG. 8B****FIG. 8C**

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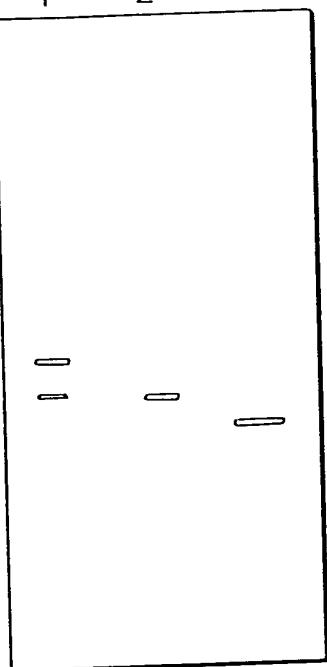
1 2 3

200-

97-

68-

43-



**FIG. 9A**

1 2 3 4 5 6

2.0-

1.6-

1.0-

0.5-



**FIG. 9B**

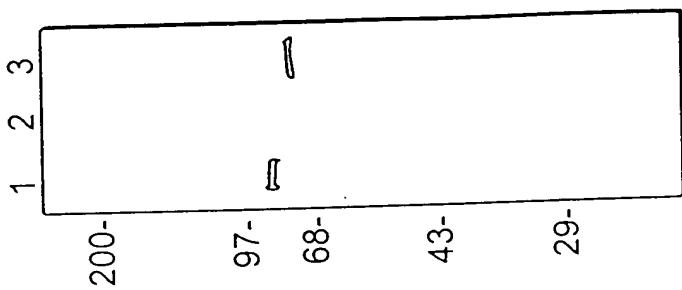


FIG. 10C

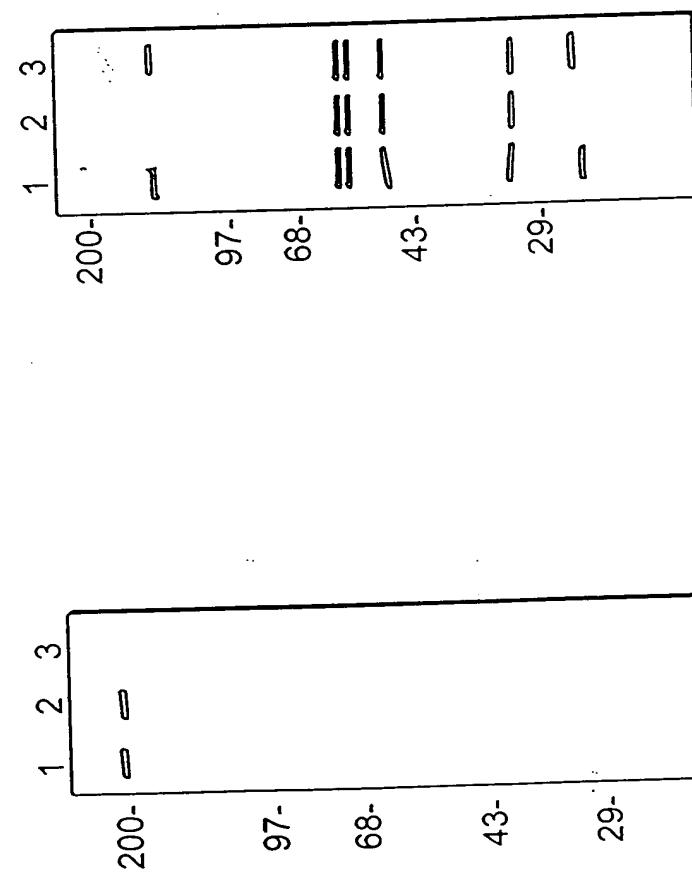


FIG. 10B

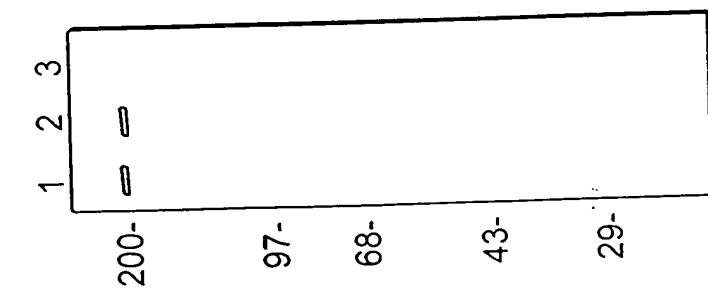


FIG. 10A

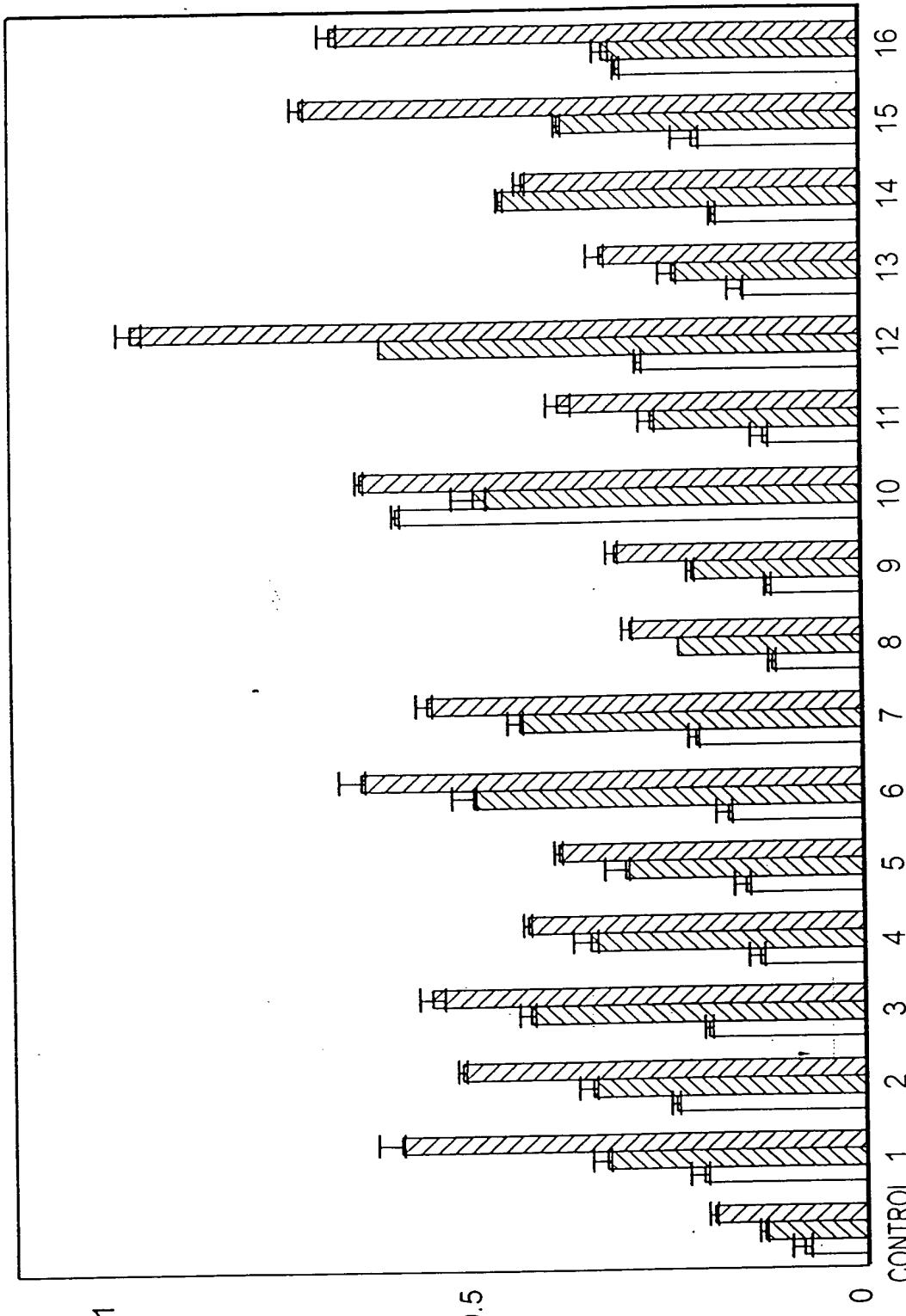


FIG. 11

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